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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,101	02/28/2002	Thomas Bayerl	1764 4000-06700	2744

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EXAMINER	
CHANKONG, DOHM	
ART UNIT	**PAPER NUMBER**
2152	

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/086,101	BAYERL ET AL.	
	Examiner	Art Unit	
	Dohm Chankong	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1> This action is in response to Applicant's after final remarks. Claims 1-15 are presented for further examination.

2> This is a non-final rejection.

Response to Arguments

3> Applicant's arguments, with respect to the rejection(s) of claim(s) 1-15 have been fully considered and are persuasive. Therefore, the final rejection, filed 1.3.2006 has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of new prior art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4> Claims 1-3, 7, 8 and 12-15 are rejected under 35 U.S.C § 103(a) as being unpatentable over Rasmussen, U.S Patent No. 6.640.334 in view of Synnestvedt et al, U.S Patent No. 6.598.057 ["Synnestvedt"], in further view of San Martin et al, U.S Patent Publication No. 2002|0087668 ["San Martin"].

5> As to claim 1, Rasmussen discloses a method for downloading a configuration file in a customer premises data communications device comprising:

receiving a configuration file in a customer premises data communications device [column 3 «lines 29-45»]; and

designating the binary file as the current binary file for the hub [claim 1].

While Rasmussen discloses a customer premises communications device, he does not explicitly disclose a hub. However hubs are well known communications devices and one of ordinary skill in the art would have been able to modify Rasmussen to incorporate hubs (routers, modems or any other well known and ubiquitous communications device) into his invention. One would have been motivated to provide these devices so as to increase the functionality of Rasmussen's system by enabling compatibility with a wider variety of communications devices.

Rasmussen also does not explicitly disclose operating the device with the binary file and verifying proper operation of the binary file.

6> In the same field of invention, San Martin is directed towards updating firmware of network devices [abstract]. San Martin expressly discloses operating the device with the binary file and verifying proper operation of the binary file [0002, 0003, abstract]. San Martin's invention provides a benefit of insuring that new software and features provided by the software run properly with the network device. If the network device fails to operate properly with the new software, a backup is utilized such that the network device is not

effected by bad software. Thus, it would have been obvious to one of ordinary skill in the art to modify Rasmussen with San Martin's verification means for the reasons stated.

7› The use of binary files to configure or update devices is a well known skill in the art. For example, Synnestvedt discloses a binary configuration file for updating data communication devices [column 2 «lines 46-60»]. It would have been obvious to one of ordinary skill in the art to modify Rasmussen's configuration file as a binary file as taught by Synnestvedt. Implementation of Rasmussen's configuration file as a binary file is well known in the art and is not an inventive step.

8› As to claim 2, Rasmussen discloses the method of claim 1 further comprising:

loading the binary file into flash memory [abstract];

storing a trial run message identifying the binary file in volatile memory [column 10 «line 66» to column 11 «line 7» | column 12 «lines 9-18» : "Active Page Flag"];

rebooting the device with the binary file [column 10 «line 66» to column 11 «line 7»].

See claim 1 for reasons and motivation to modify Rasmussen to include a hub as one of his communication devices.

9› As to claim 3, Rasmussen discloses the method of claim 2 further comprising:

during rebooting, checking the volatile memory for the existent of a trial run message [column 4 «lines 20-35»].

10> As to claim 7, Rasmussen discloses a customer premises communications device comprising:

a nonvolatile memory having first and second memory sections for storing configuration files [Figure 5a «"active page" and "inactive page"»];

means for designating one of said first and second memory sections as currently active [column 4 «lines 20-35»];

means for receiving a new configuration file and storing it in the memory section which is not designated as currently active [column 7 «lines 31-60» | claim 1];

means for designating the other of said first and second memory sections as currently active [column 7 «lines 31-60»].

While Rasmussen discloses a customer premises communications device, he does not explicitly disclose a hub. However hubs are well known communications devices and one of ordinary skill in the art would have been able to modify Rasmussen to incorporate hubs (routers, modems or any other well known and ubiquitous communications device) into his invention. One would have been motivated to provide these devices so as to increase the functionality of Rasmussen's system by enabling compatibility with a wider variety of communications devices.

Rasmussen also does not explicitly disclose operating the device with the binary file and verifying proper operation of the binary file.

11> In the same field of invention, San Martin is directed towards updating firmware of

network devices [abstract]. San Martin expressly discloses operating the device with the binary file and verifying proper operation of the binary file [0002, 0003, abstract]. San Martin's invention provides a benefit of insuring that new software and features provided by the software run properly with the network device. If the network device fails to operate properly with the new software, a backup is utilized such that the network device is not effected by bad software. Thus, it would have been obvious to one of ordinary skill in the art to modify Rasmussen with San Martin's verification means for the reasons stated.

12> The use of binary files to configure or update devices is a well known skill in the art. For example, Synnestvedt discloses a binary configuration file for updating data communication devices [column 2 «lines 46-60»]. It would have been obvious to one of ordinary skill in the art to modify Rasmussen's configuration file as a binary file as taught by Synnestvedt. Such a modification of Rasmussen's configuration is well known in the art and is not an inventive step.

13> As to claim 8, Rasmussen, San Martin and Synnestvedt disclose the hub of claim 7, further comprising:

a volatile memory having a memory location designated for storing a trial run message [see Rasmussen, column 5 «lines 21-23» | column 6 «line 61» to column 7 «line 25» : "storing run-time data" and RAM is well known in the art to be volatile memory];

means for, upon receipt of a new binary file, storing in said volatile memory a trial run message identifying the nonvolatile memory section in which said new binary file is stored [column 6 «lines 61» to column 7 «line 5»]; and

means for, upon rebooting, checking said volatile memory for the presence of a trial run message and, if present, operating said hub with the new binary file [column 6 «lines 61» to column 7 «line 5» where : the presence of the flag being set to "0" or "1" corresponds to a trial run message].

14› As to claims 12-15, as they do not teach or define over the previously claimed limitations [see rejection of claims 7 and 8], claims 12-15 are rejected for reasons set forth for the rejection of claims 7 and 8, above.

15› Claims 4, 6, 9 and 10 are rejected under 35 U.S.C § 103(a) as being unpatentable over Rasmussen, San Martin and Synnestvedt, in further view of Morgan et al, U.S Patent Publication No. 2002|0144187 ["Morgan"].

16› As to claim 4, Rasmussen, San Martin and Synnestvedt do not explicitly disclose verifying proper operation of the binary file by detecting the receipt of an acknowledgement message from an external server.

17› The "proper operation of the binary file" implies proper operation of the hub (or network device in Rasmussen's case). The receipt of an ACK from an external server implies

that a test message was sent by the hub that is operating the binary file. It should be noted that there are several well known ways in the art for a network device to test or verify that it is properly running after an update/upgrade (i.e., that is, to correctly connected to the internet), such as sending out test messages or pinging a known address. Moreover the use of acknowledgement packets are ubiquitous in the art as a means for a sender to verify connection to a receiver. For example, Morgan discloses verifying network connections between network devices by sending a message and waiting for the subsequent response (ACK) [0037]. So while Rasmussen does not explicitly state how he would check if "updated versions of the firmware fail", it would have been obvious to one of ordinary skill in the art to have incorporated the ACK functionality between the update server and the client in Rasmussen's system as a means of verifying the proper operation of the new configuration file as taught by Morgan. This implementation is particularly relevant and expected in Rasmussen because his devices are network devices and communication to external network devices such as a server would be necessary. Such an implementation is not novel as it is a well known technique in the art.

18> As to claim 6, Rasmussen, San Martin and Synnestvedt to not explicitly disclose verifying proper operation of the file by detecting receipt of a domain name from an external server.

19> Morgan discloses verifying network connections of devices by pinging a DHCP server (well known in the art that pinging a DHCP server results in a domain name) [0071].

It would have been obvious to one of ordinary skill in the art to incorporate Morgan's connection testing technique into Rasmussen's system to verify that the binary file has not corrupted operations of the network device.

20> As to claims 9 and 10 as they are claims to a hub that implement the steps of the method of claims 4 and 6, they are similarly rejected for reasons set forth above.

21> Claims 5 and 11 are rejected under 35 U.S.C § 103(a) as being unpatentable over Rasmussen, San Martin, Synnestvedt and Morgan, in further view of an Official Notice.

22> As to claims 5 and 11, Rasmussen, Morgan and Synnestvedt do not explicitly disclose receiving a configuration file from an external server. However, these are obvious variations (kinds of responses) to claims 4 and 6 and are related more to design choice rather than patentable distinction; that is, ACKs, configuration files or domain names are variations on the response received from a server, the absence of which would signal to a client that there is a problem with a recent upgrade. The variations do not represent an inventive step over what is commonly known in the art. Therefore, Official Notice is taken that one of ordinary skill in the art would have modified Rasmussen and Synnestvedt to incorporate the use of configuration files and domain names (suggested by Synnestvedt's DHCP and TFTP server) as a means to verify the proper operation of the network device after it has been upgraded by the configuration file. Such an implementation is not novel as it is a well known technique in the art and therefore is not inventive.

23› Claims 1-3, 7, 8 and 12-15 are rejected under 35 U.S.C § 103(a) as being unpatentable over Rasmussen, U.S Patent No. 6.640.334 in view of Synnestvedt et al, U.S Patent No. 6.598.057 ["Synnestvedt"], in further view of Aija et al, U.S Patent No. 6.928.579 ["Aija"].

24› As to claim 1, Rasmussen discloses a method for downloading a configuration file in a customer premises data communications device comprising:

receiving a configuration file in a customer premises data communications device [column 3 «lines 29-45»]; and

designating the binary file as the current binary file for the hub [claim 1].

While Rasmussen discloses a customer premises communications device, he does not explicitly disclose a hub. However hubs are well known communications devices and one of ordinary skill in the art would have been able to modify Rasmussen to incorporate hubs (routers, modems or any other well known and ubiquitous communications device) into his invention. One would have been motivated to provide these devices so as to increase the functionality of Rasmussen's system by enabling compatibility with a wider variety of communications devices.

Rasmussen also does not explicitly disclose operating the device with the binary file and verifying proper operation of the binary file.

25› In the same field of invention, Aija is directed towards updating firmware of network devices and utilizing multiple partitions to recover from booting or run-time errors [abstract | column 1 «lines 6-9»]. Aija expressly discloses operating the device with the

binary file and verifying proper operation of the binary file [column 1 «lines 39-48» | column 4 «lines 1-9» where : Aija discloses running the device with the new software download. If the device fails to properly load with the new software, the device reverts back to a backup copy. Otherwise, the device marks it as the "current" file]. Aija's invention provides a benefit of insuring that new software and features provided by the software run properly with the network device. If the network device fails to operate properly with the new software, a backup is utilized such that the network device is not effected by bad software. Thus, it would have been obvious to one of ordinary skill in the art to modify Rasmussen with Aija's testing means for the reasons stated.

26› The use of binary files to configure or update devices is a well known skill in the art. For example, Synnestvedt discloses a binary configuration file for updating data communication devices [column 2 «lines 46-60»]. It would have been obvious to one of ordinary skill in the art to modify Rasmussen's configuration file as a binary file as taught by Synnestvedt. Implementation of Rasmussen's configuration file as a binary file is well known in the art and is not an inventive step.

27› As to claims 2, 3, 7, 8 and 12-15, they are rejected for at least the same reasons as set forth above.

28› Claims 4-6 and 9-11 are rejected for at least he same reasons as set forth above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is 571.272.3942. The examiner can normally be reached on Monday-Thursday [7:00 AM to 5:00 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571.272.3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER

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